

NOTES LEGEND:

Schematic Page Titles

Functional Block Labels

Circuit design notes

Table of Contents

Pg# - Schematic Page Name

P01 - Title Page

P02 - Block Diagram

P03 - Power Tree

P04 - USB/DC Jack & Charger & BatBuck/Boost

P05 - Phoenix Power Component

P06 - Phoenix Audio Component

P07 - OMAP4470 Symbol "A"

P08 - OMAP4470 Symbol "B"

P09 - OMAP4470 Symbol "C"

P10 - Flash memory & Ref Clock Driver

P11 - TP & Key

P12 - LCD Power & Display

P13 - HDMI Jack & ESD & Level-Trans

P14 - Audio Earphone & Mic Jack

P15 - Sensor G-sensor & Compass & Light

P16 - Camera Dual

P17 - P17 USB-PHY HUB to 3G

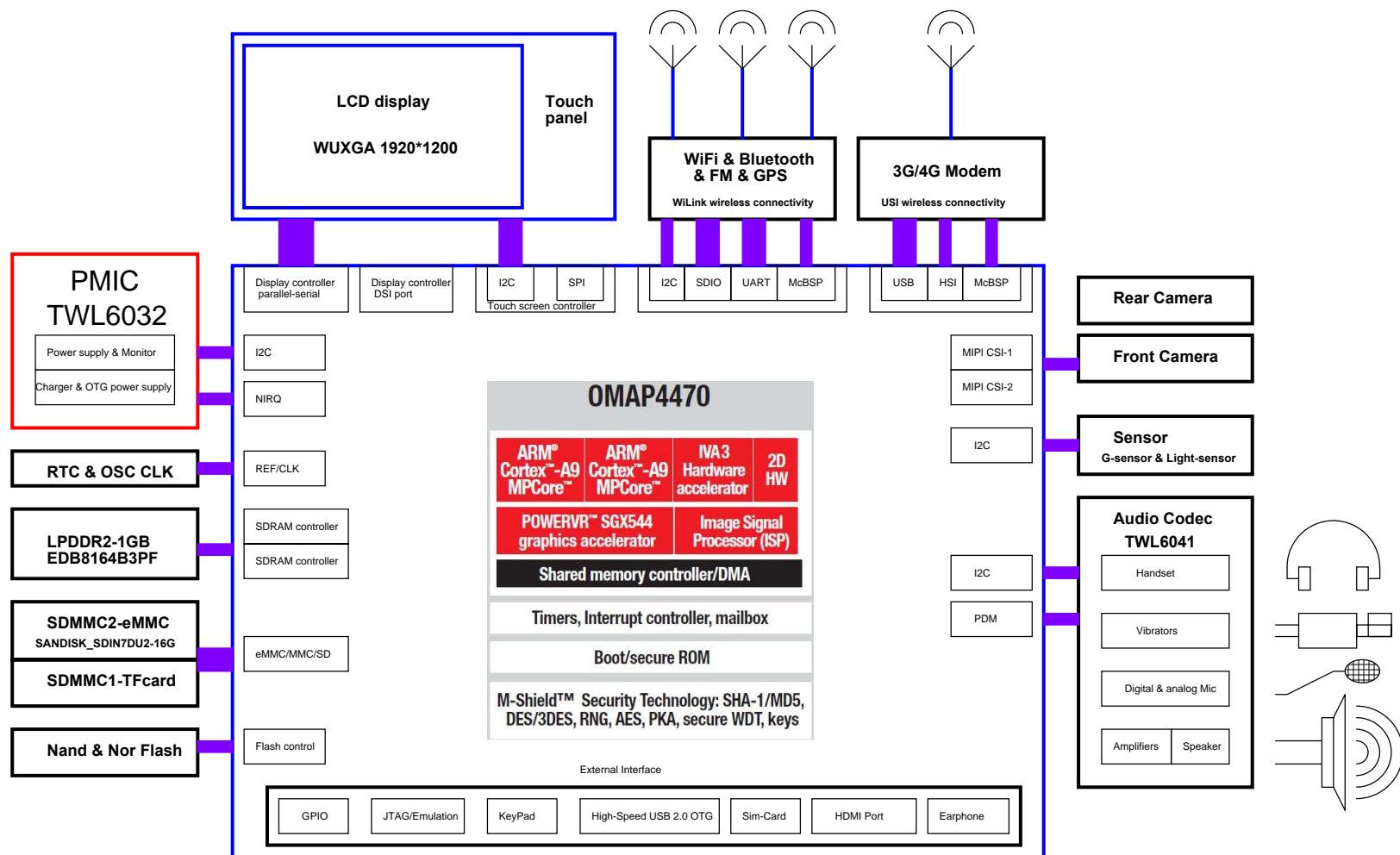
P18 - NFC module

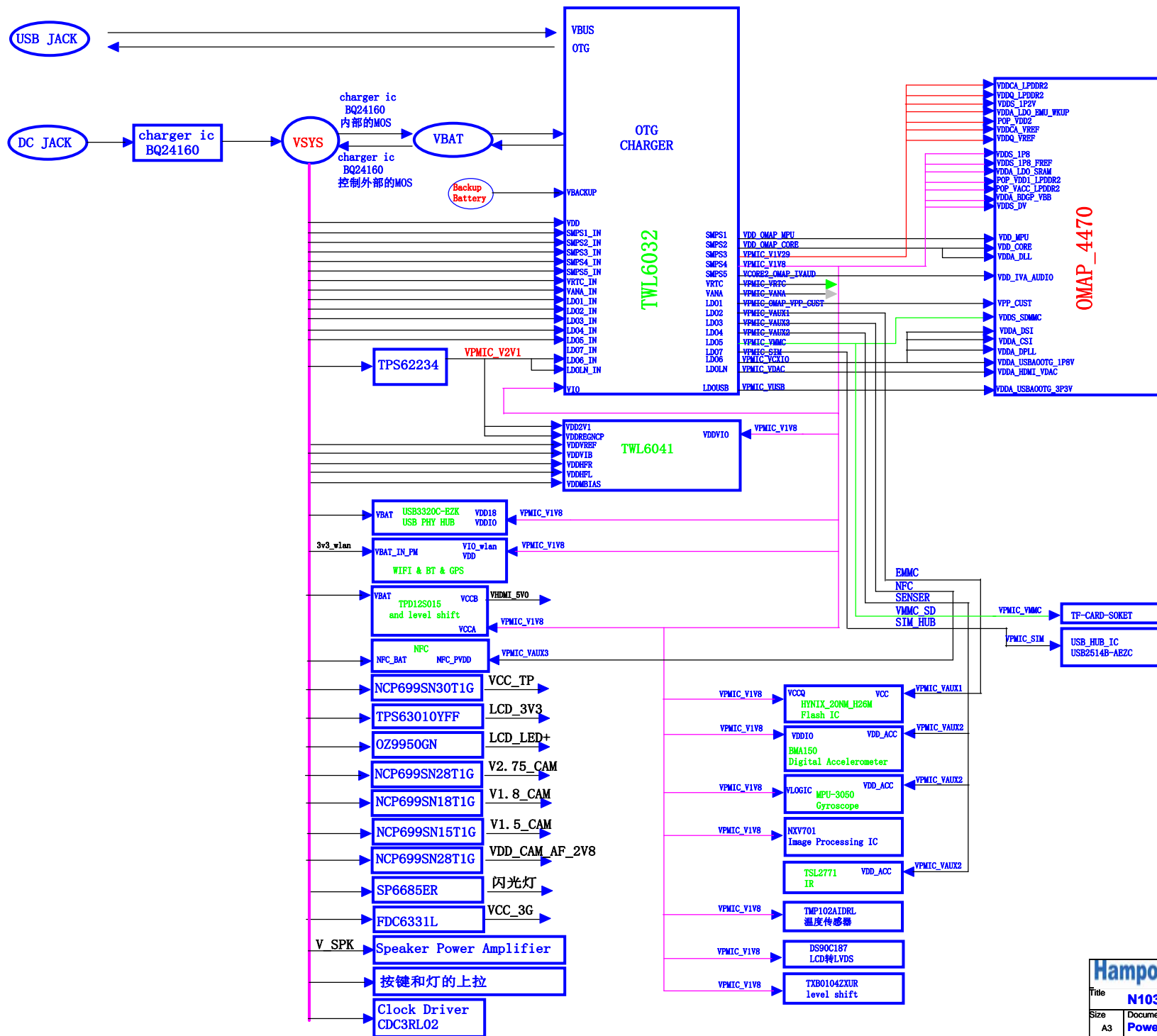
P19 - WIFI & Bluetooch & GPS

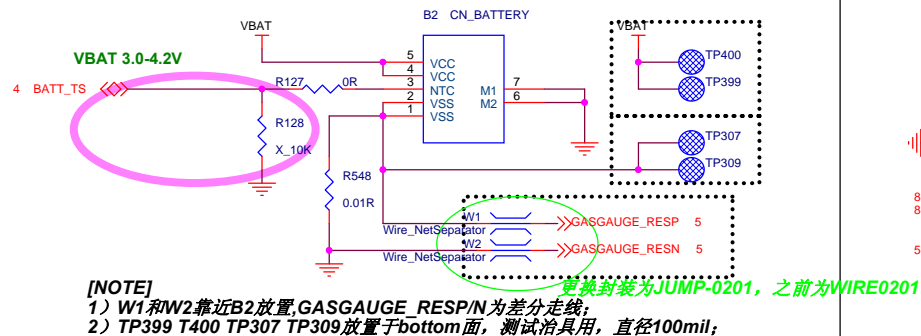
P20 - 3G & Sim card

P21 - OMAP Debug Interface

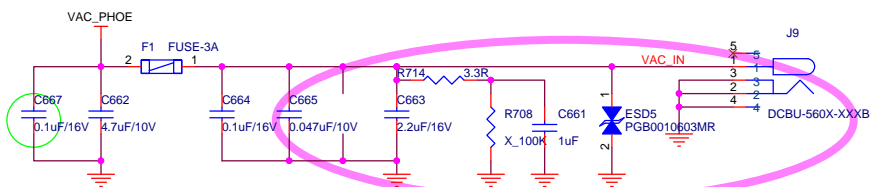
P22 - REVISION HISTORY



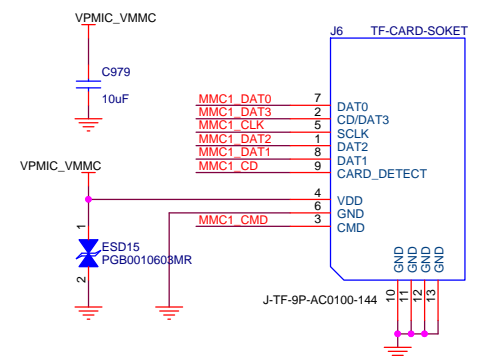
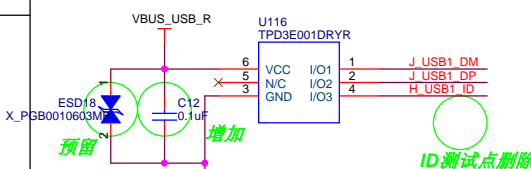
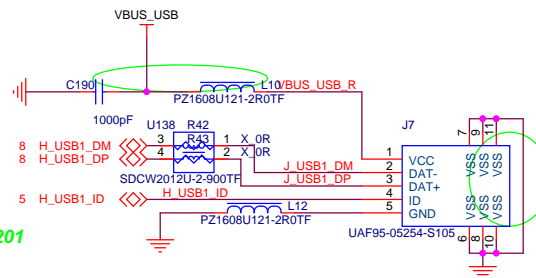




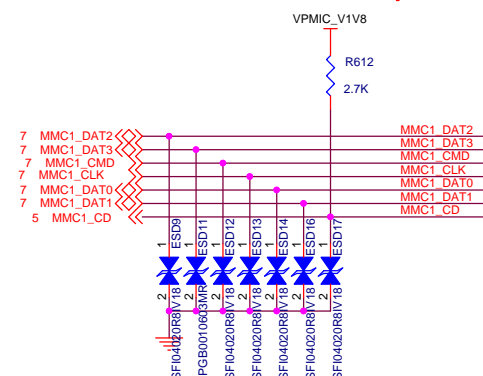
BATT_CONN & DC_IN Power Supply Switch



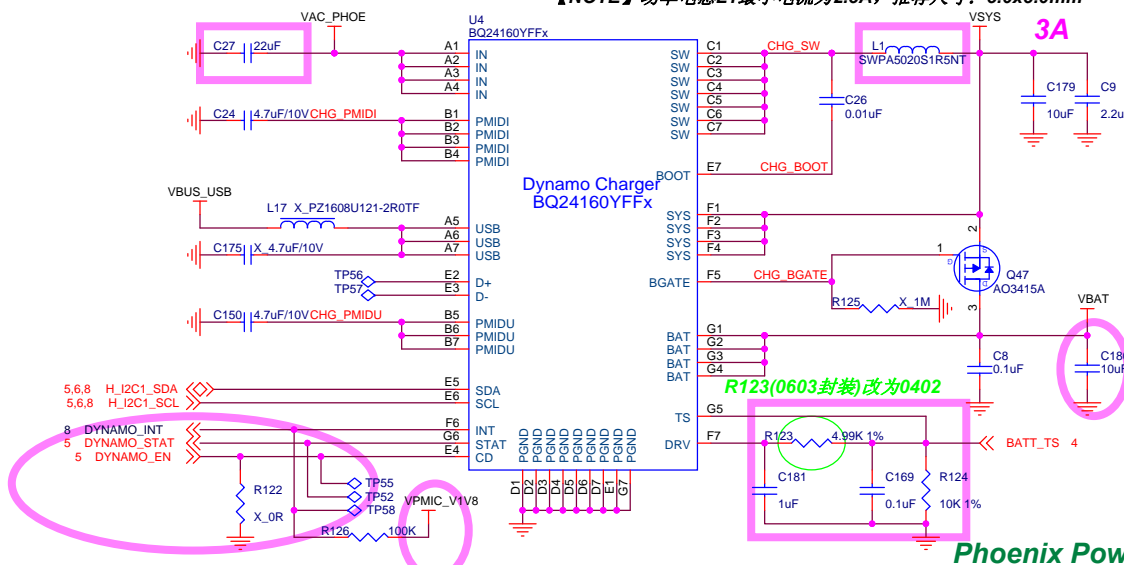
DC JACK



TF Card & ESD & Testpoint

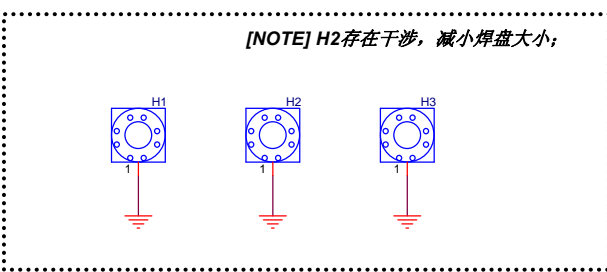


【NOTE】 功率电感L1最小电流为2.5A, 推荐尺寸: 5.0x5.0mm



Batt NTC resistor: CMFA103J3500HANT
 0 °C == 30K R
 25°C == 10K R
 60°C == 3K R
 Temp Setting: -10°C ~ 60°C

NTC MONITOR REG:
 TS_FAULT1/TS_FAULT0: 0 1
 电池温度异常(超出设置范围), 充电停止



Positioning Screw Holes

Hampoo Shenzhen Hampoo Science & Technology Co.,Ltd.			
File	N103D_MAIN_V400		
Size	Document Number	Rev	
A3	DC/USB/MMC Jack & Charger	V2.05	
Date:	Wednesday, October 30, 2013	Sheet	4 of 22

Component ROOM = PMIC

VPMIC VRTC

Q2 FET used for Power Path.
R147 (installed), R116 (not installed) - Power Path Disabled (DEFAULT)
R147 (not installed), R116 (installed) - Power Path Enabled

Compatibility:

All Current Blaze Apps PCB - not Power Path enabled
All Current Tablet 1 and 2 Apps PCB - not Power Path enabled

Part #'s:

In case of power path used TWL6032 reference is TWL6032A2B6 and BQ charger is BQ24159

**In case of power path not used TWL6032 reference
TWL6032A2B7 and BQ charger is BQ24156**

[NOTE-V205]

- 1) VBUS_USB增加下拉电阻R98(X 10K 0402);
- 2) VAC_PHOE输入检测网络增加电阻R169(0R 0201), DYNAMO_EN网络增加电阻R170(0R 0201);
- 3) 删除R67(0R 0805);
- 4) 删除TP159(VBUS_DET)便于电源走线;

[NOTE-V205] 删除R50 R63 R168(OR 0201);

Ref

C47 12pF

Y2 32.768KHz

C46 12pF

C14 2.2uF

Ph+

Ph-

VPMIC_V2V1

VPMIC_V1V8

Timing diagram for the PMIC_VPP pin. The diagram shows the VPP signal (blue) and its current consumption (red) over time. The signal transitions from high to low at approximately 1.80V 25mA, then to 3.0V 25mA, then to 80mA, then to 2.8V 200mA, then to 200mA, then to 2.85V 200mA, and finally to 2.8V 200mA. The current consumption is shown as a red line with a peak of 10mA at the first transition, 3mA at the second, 25mA at the third, and 25mA at the fourth. The signal is high for the first two transitions and low for the last two.

[NOTE-V205] 删除R88、R136(0R 0402);

[NOTE-205] GPACD_START下拉，禁掉GPACD_IN功能;

[NOTE-V205]

- L11封装更改为IND-2P5X2MM，和L13一致；
- SMPS1输出端：L44封装，L42封装增大为5X5mm；
- SMPS1 SMPS2 SMPS3 SMPS4 SMPS5的输入磁珠删除：L6 L10 L12 L15 L43；
- 删除FB电阻：R92 R112；

SMPS1 Output Option:
add an additional 2nd L and C in parallel for improved efficiency.

If used, GGAUGE_RESN & GGAUGE_RESP must be routed differentially

[NOTE-V205] 删除R88、R136(OR 0402);

[NOTE-205]
GPACD_START下拉, 禁掉GPADC_IN功能;

- [NOTE-V205]
 1) L11封装更改为1ND-2P5X2MM, 和L13一致;
 2) SMPS1输出端: L44删除, L42封装增大为5X5mm;
 3) SMPS1 SMPS2 SMPS3 SMPS4 SMPS5的输入磁珠删除: L6 L10 L12 L15 L43;
 4) 删除FB电阻: R92 R112;

SMPS1 Output Option:
add an additional 2nd L
and C in parallel for
improved efficiency.

(Phoenix Lite)

[NOTE-V205] CHRG_LED_IN 输入和 CHRG_LED_TEST 输出接地, 禁掉该功能;

Backup Battery

[NOTE-V205] 删除备用电池;

Phoenix Power Management IC

OMAP4 Audio Interfaces

Component ROOM = PAUD

Controls

Power Inputs

TP174	H_PDM_CLK
TP186	H_ABE_CLKS
TP169	H_PDM_DL_DATA
TP192	H_PDM_UL_DATA
TP197	H_PDM_FRAME
TP201	H_SYS_nIRQ2
TP205	H_AUD_PWRON
TP161	CLK32K_AUD
TP164	H_FREQ_PAUD_CLK

Digital Microphone BIAS

Main MIC (Right)

Analog Microphones

Secondary MIC (Left)

Headphone MIC

HeadPhone

To 32 Ohm Ear Phone Speaker

8 Ohm Hand Free Speaker - Left
Handfree Analog Speakers
8 Ohm Hand Free Speaker - Right

Phoenix Audio IC

PTWL6041AYFF Audio IC



Vibrator

Hampoo Shenzhen Hampoo Science & Technology Co.,Ltd.			
Title	N103D_MAIN_V400		
Size	Document Number		Rev
Customer	Phoenix Audio IC		
Date:	Wednesday, October 30, 2013	Sheet	6 of 22

OMAP / Host Signaling I/Fs

Component ROOM = OMAP

[NOTE-V205] 20130218
CSI22_DAT2+/-连接错误, 更正连接;

3G AUDIO

BT AUDIO

PDM

USB_PHY

[NOTE-V205] 删除PHY, 更改为HSIC HUB;

TF card

UART2_BT

SPI&CTL_TP

UART1_3G

UART_DEBUG

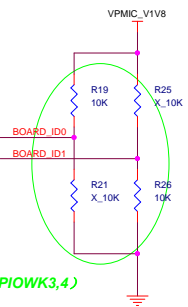
3G CTRL

[NOTE-V205]
1) 增加GPIO:AUD_HS_POP MUTE用于控制耳机输出POP音;
2) 增加GPIO:H_USB_HUB_RESET用于HUB IC复位;

HDMI

ID1	ID0	VER
0	0	
0	1	VER1
1	0	
1	1	

增加硬件版本识别 (GPIOWK3,4)



LPDDR2

111-1004011
EDB8164B3PF-1D-F 1066MHz
1GB POP MEMORY (MOUNT ON TOP OF OMAP4470)

OMAP4470,
12x12mm, FCP0P1
(547 Bottom Balls, 0.4mm Pitch, 216 Top Pads)

LCD_DISPLAY_DSI_PORT

Flash Memory

TP Controls
NFC Controls
LCD Controls

WL1283 RF Controls

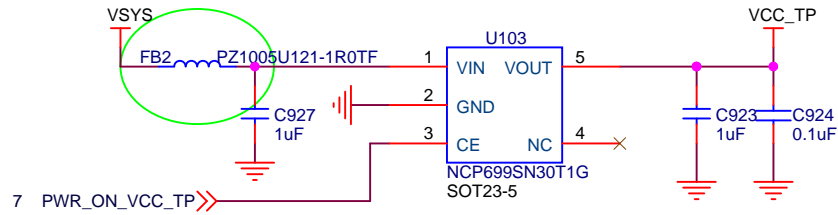
HS_MIC_LINE_Control
Camera Reset Controls
LED Indicator
Camera Powerdown Controls

USB Hub IC INT & RESET

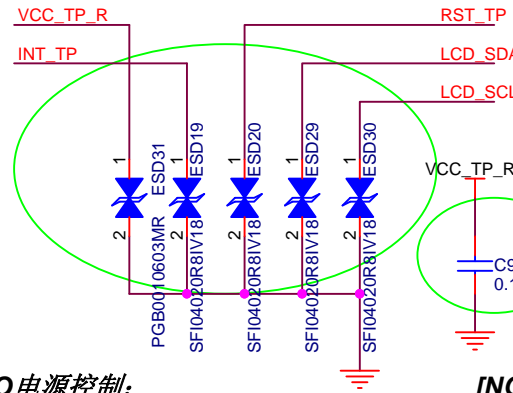
OMAP4470 Symbol "A"



TP power supply

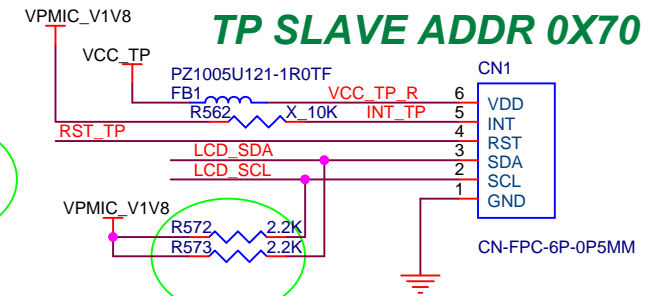


[NOTE] VCC_TP单独给TP供电, 增加PWR_ON_VCC_TP作GPIO电源控制;



TP I2C Connector

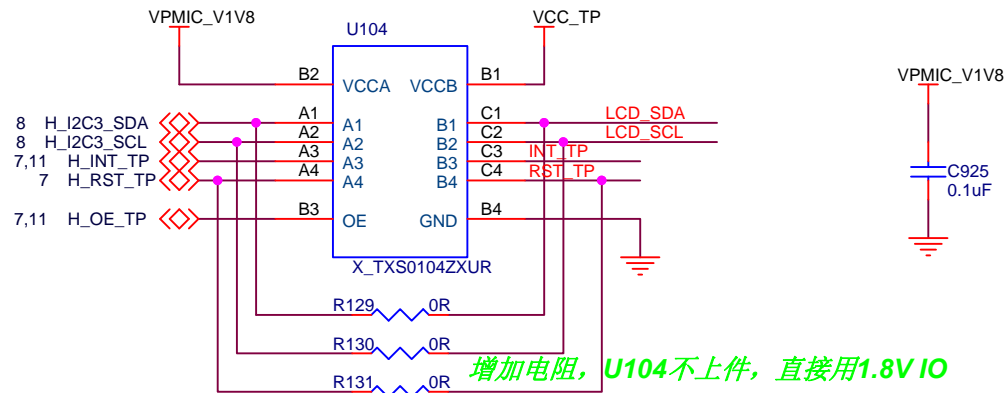
TP SLAVE ADDR 0X70



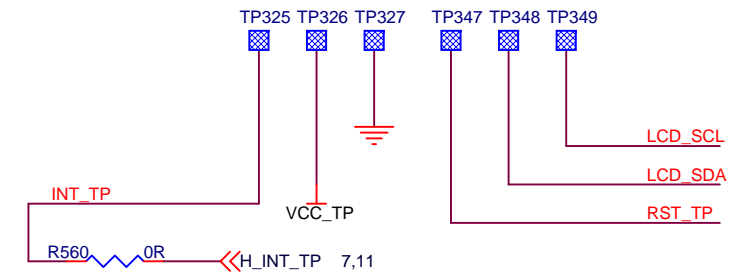
[NOTE] C926靠近CN1放置;

用1.8V IO, R572,R573(47K)改为2.2K
上拉电平改为哦1.8V

LCD&TP I2C&SPI Level Translator



增加电阻, U104不上件, 直接用1.8V IO



[NOTE] 预留TP I2C&SPI测试点;

Key-board Connector 10pins & LEDs indicator

[NOTE-V205]

增加分压电阻及MOS管, 解决上电瞬间指示灯闪烁的问题;

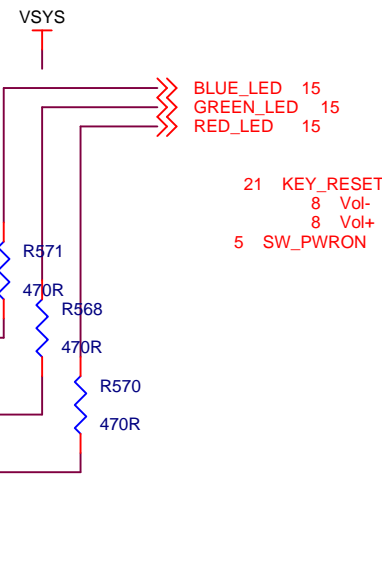
GPIO53换为GPIO83

BLUE LED

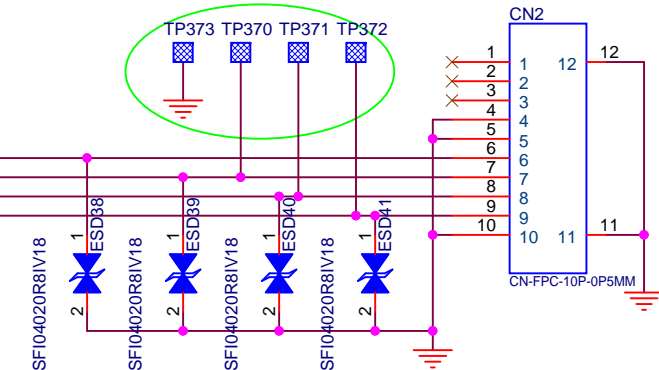
GREEN LED

RED LED

GPIO52换为GPIO00



增加RC, 测试点layout不能移动位置



Hampoo Shenzhen Hampoo Science & Technology Co.,Ltd.

Title N103D_MAIN_V400

Size A4 Document Number TP & Key

Rev V2.05

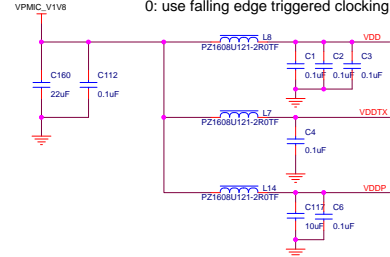
Date: Wednesday, October 30, 2013 Sheet 11 of 22

PDB: Power Down (Sleep) Control Input
 0 = Sleep (Power Down mode),
 1 = device active (enabled)

VODSEL: Differential Output Voltage Level
 0 = Low swing,
 1 = Normal swing

RFB:
 1: use rising edge triggered clocking.
 0: use falling edge triggered clocking.

VPMIC_V1V8



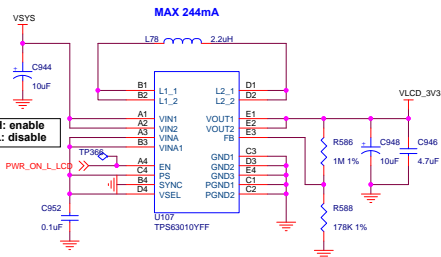
8 DSS_Q[0:23] >>>

B0	DSS_D0
B1	DSS_D1
B2	DSS_D2
B3	DSS_D3
B4	DSS_D4
B5	DSS_D5
B6	DSS_D6
B7	DSS_D7
<hr/>	
G0	DSS_D8
G1	DSS_D9
G2	DSS_D10
G3	DSS_D11
G4	DSS_D12
G5	DSS_D13
G6	DSS_D14
G7	DSS_D15
<hr/>	
R0	DSS_D16
R1	DSS_D17
R2	DSS_D18
R3	DSS_D19
R4	DSS_D20
R5	DSS_D21
R6	DSS_D22
R7	DSS_D23

8 DSS_PCLK <-- DSS_PCLK
8 DSS_ACBIAS <-- DSS_ACBIAS
8 DSS_VSYNC <-- DSS_VSYNC
8 DSS_HSYNC <-- DSS_HSYNC
5 PHO_PWM1_LCD <-- PHO_PWM1_LCD



Mode Control Inputs (MODE1, MODE0)
 00 = Single In / Single Out
 01 = Single In / Dual Out
 10 = Dual In / Dual Out
 11 = Reserved
 Includes pull down.



MAX244MA

Vsys

C944 10uF

L78 2.2uH

B1 B2

L1_1 L1_2

L2_1 L2_2

D1 D2

A1 A2

VIN1 VIN2

VINA VINA

B3 B4

TP306

A4 A5

EN PS

BA BB

SYNC VSEL

D4 D5

C952 0.1uF

U107 TPS63010YFF

R586 1M 1%

C948 10uF

C946 4.7uF

VLCD_3V3

R588 178K 1%

C951 0.1uF

C971 1uF

R593 1M

R590 240K

R591 10K

R599 12.1R

R598 1.5R 1%

LCD_LED+

LCD_LED-

LCD_PWM_R

LCD_PWM_R

LCD_LED+

LCD_LED-

L79 SWPA5020SR7MT

D2 D3

SS3P4

C942 10uF

C943 0.1uF

C945 1uF

C953 0.47uF

C954 10uF/25V

C955 10uF/25V

C956 10uF/25V

C957 10uF/25V

C958 10uF/25V

C959 10uF/25V

C960 10uF/25V

C961 10uF/25V

C962 10uF/25V

C963 10uF/25V

C964 10uF/25V

C965 10uF/25V

C966 10uF/25V

C967 10uF/25V

C968 10uF/25V

C969 10uF/25V

C970 10uF/25V

C971 10uF/25V

C972 10uF/25V

C973 10uF/25V

C974 10uF/25V

C975 10uF/25V

C976 10uF/25V

C977 10uF/25V

C978 10uF/25V

C979 10uF/25V

C980 10uF/25V

C981 10uF/25V

C982 10uF/25V

C983 10uF/25V

C984 10uF/25V

C985 10uF/25V

C986 10uF/25V

C987 10uF/25V

C988 10uF/25V

C989 10uF/25V

C990 10uF/25V

C991 10uF/25V

C992 10uF/25V

C993 10uF/25V

C994 10uF/25V

C995 10uF/25V

C996 10uF/25V

C997 10uF/25V

C998 10uF/25V

C999 10uF/25V

C1000 10uF/25V

U108

COMP VCC

ISEN CDRV

DIM-ENA DRV

VSEN GND

Q29950GN

Q4 AO3400

Typ 120mA

LCD_LED+

LCD_LED-

C947 10uF/25V

C973 10uF/25V

C974 10uF/25V

C975 10uF/25V

C976 10uF/25V

C977 10uF/25V

C978 10uF/25V

C979 10uF/25V

C980 10uF/25V

C981 10uF/25V

C982 10uF/25V

C983 10uF/25V

C984 10uF/25V

C985 10uF/25V

C986 10uF/25V

C987 10uF/25V

C988 10uF/25V

C989 10uF/25V

C990 10uF/25V

C991 10uF/25V

C992 10uF/25V

C993 10uF/25V

C994 10uF/25V

C995 10uF/25V

C996 10uF/25V

C997 10uF/25V

C998 10uF/25V

C999 10uF/25V

C1000 10uF/25V

NOTE-V205]

1) D2更改物料，更新BOM；

2) C947(10uF/25V 1206)封装更改为0805；

3) PWM增加双RC电路，//20130131已验证

PWM Diming Mode

PHO_PWM1 LCD_PWM1 22K

R592 22K

C951 0.1uF

C971 1uF

R593 1M

R590 240K

R591 10K

R599 12.1R

R598 1.5R 1%

LCD_LED+

LCD_LED-

LCD_PWM_R

LCD_PWM_R

LCD_LED+

LCD_LED-

LCD PWM mode:

PHO_PWM 256HZ(100~300Hz)

LCD Dimming mode:

H_PWM >20kHz(With RC)

PHO_PWM 512HZ(With RC)

VSEN(Over-voltage protect):

V_ovp = 1V * (R1+R2)/R1

增加电阻 (12.1R)

最大电流为141.2mA

L_peak = 3.0*2.7* (1/4.7) = 1.72 A

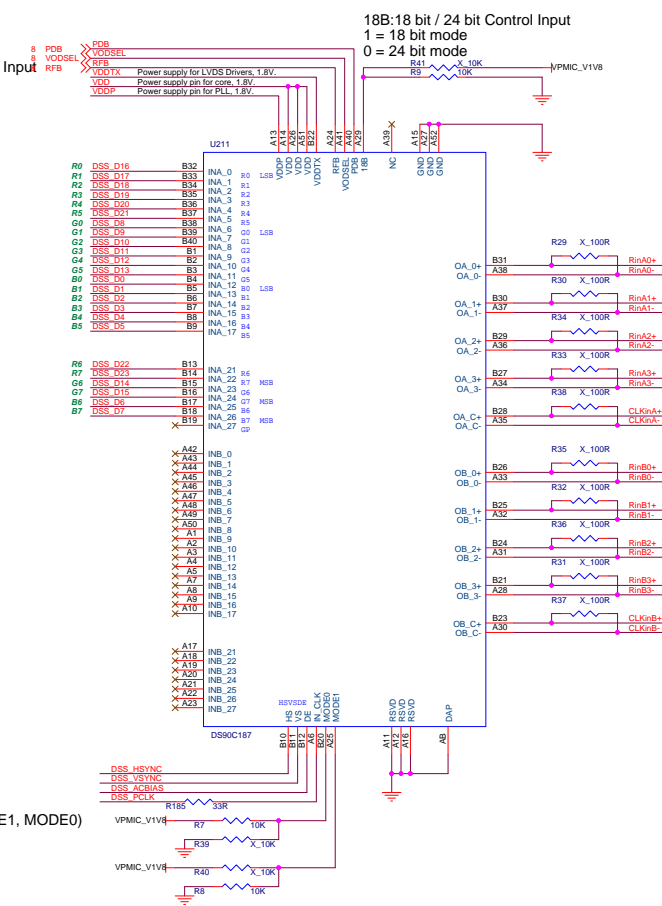
B. Inductor Peak Current

$$I_{PEAK} = \frac{V_{CC} \times T_{ON}}{L} \quad (Amps)$$

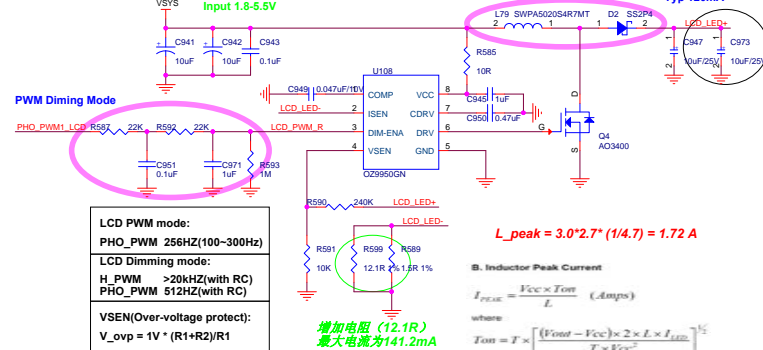
where:

$$T_{ON} = T \times \left[\frac{(V_{IND} - V_{CC}) \times 2 \times L \times L_{LED}}{T \times L_{LED}} \right]^{\frac{1}{2}}$$

LCD Backlight & DVDD



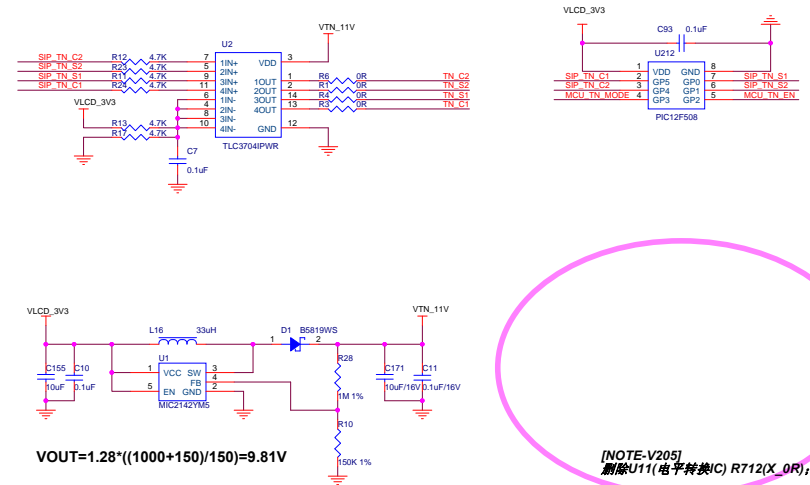
[NOTE-V205]
1) D2更改物料, 更新BOM;
2) C947(10uF/25V 1206)封装更改为0805;
3) PWM增加双RC电路; //20130131已验证



PD_TN_EN:

L 2D display mode

3D display mode



TN driving device TLC3704

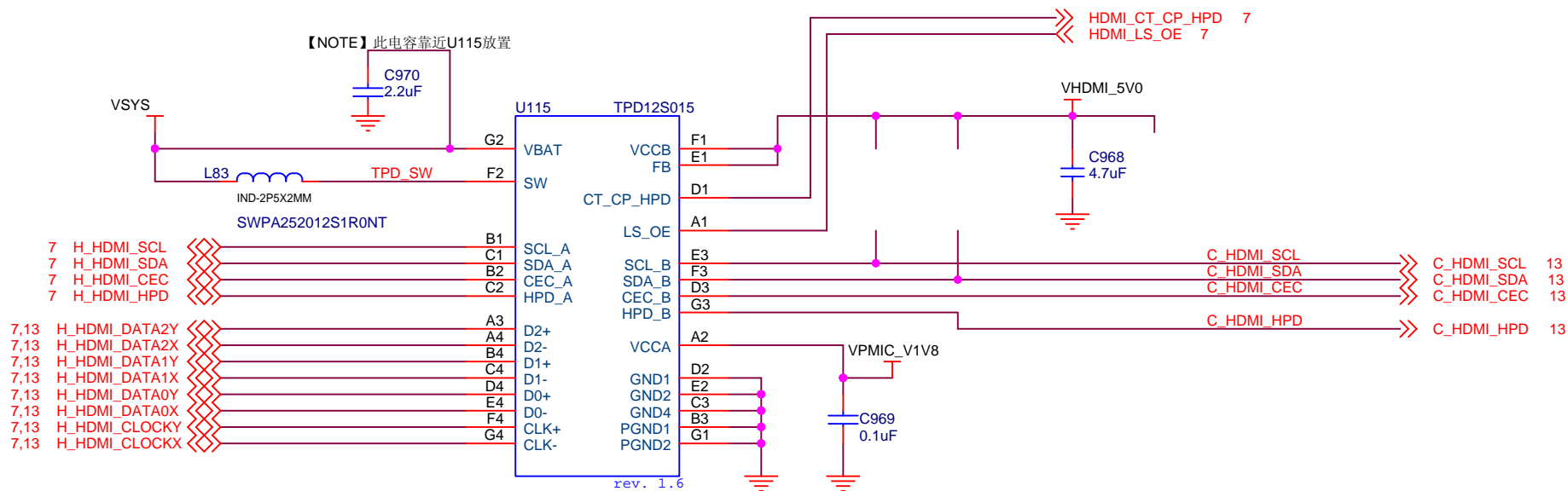
The circuit diagram shows the following components and connections:

- Input:** VLCD_3V3
- Capacitors:** C155 (10uF), C10 (0.1uF)
- Inductor:** L16 (33uH)
- IC:** U1 (TLC3704)
- Connections:**
 - VLCD_3V3 is connected to the input of U1.
 - C155 and C10 are connected to the input of U1.
 - L16 is connected to the output of U1.
 - U1 is connected to the output of the circuit.

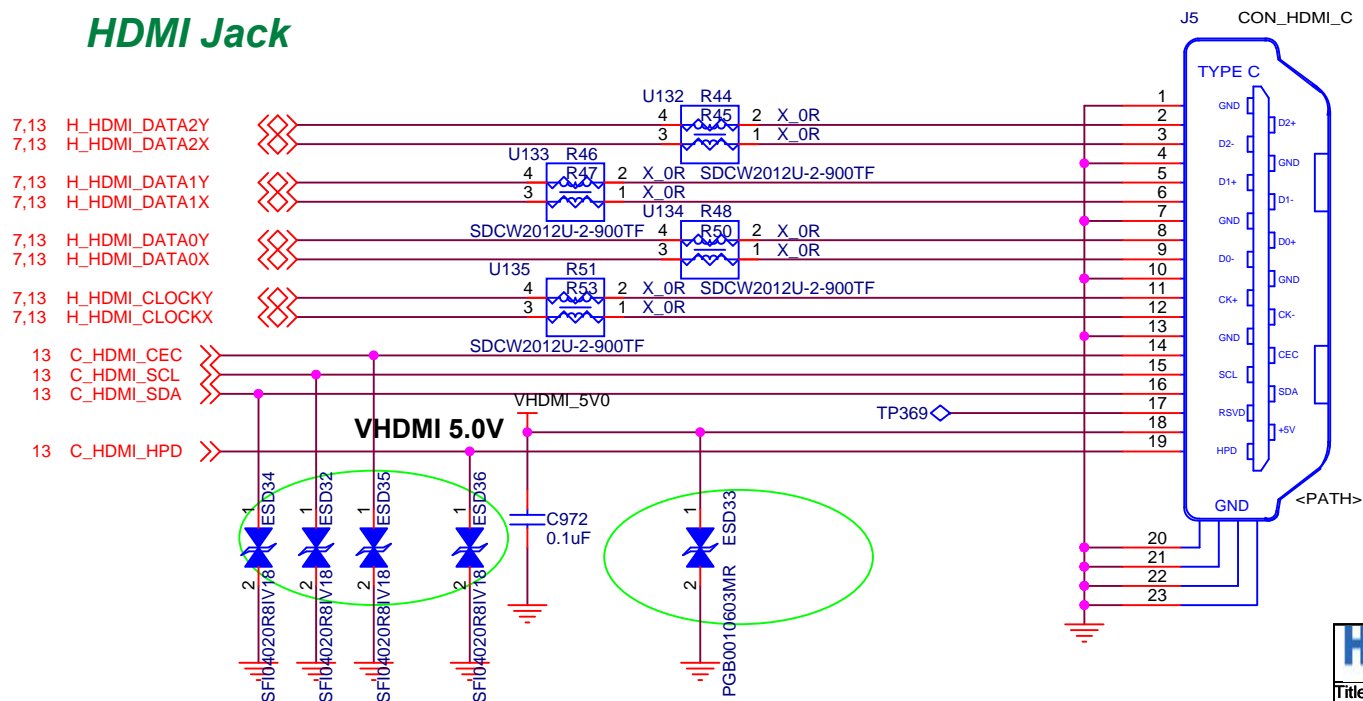
Output: $V_{OUT} = 1.28 * ((1000 + 150) / 150) = 9$

HDMI - Charge Pump/ESD/Level Translator & Connector

Component ROOM = HDMI

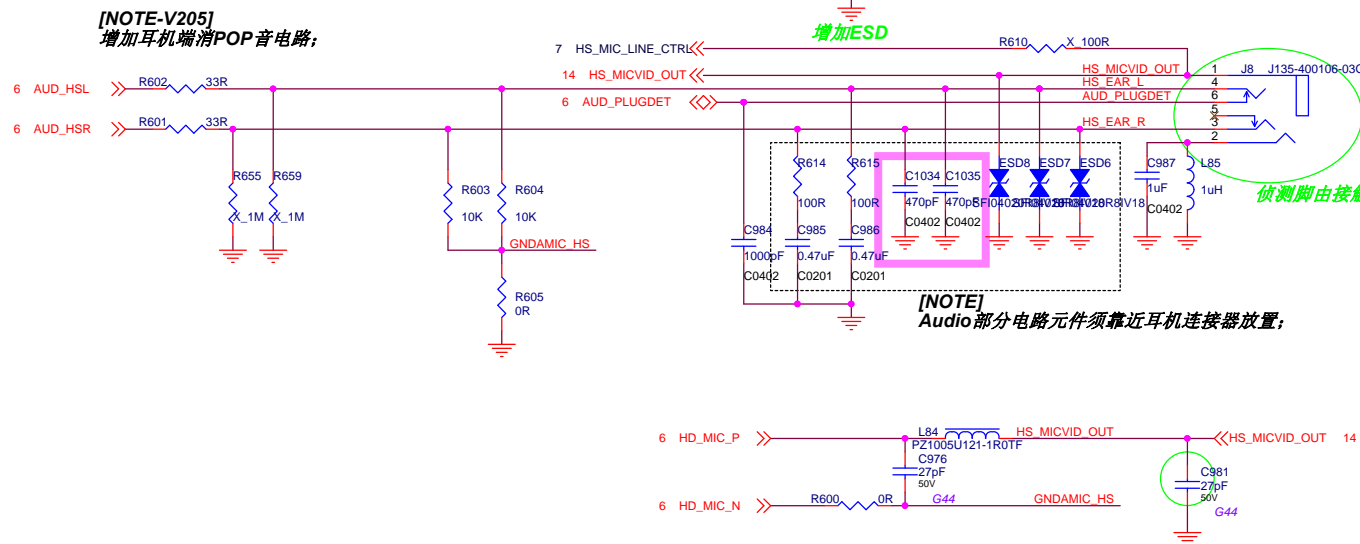


HDMI Jack

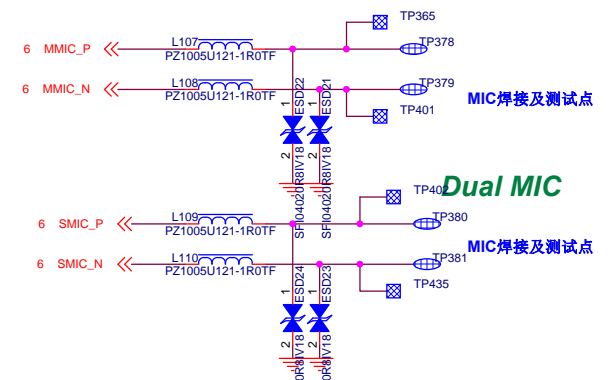
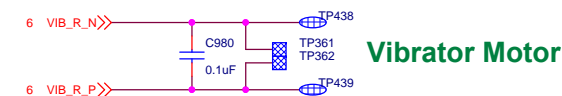


Hampoo Shenzhen Hampoo Science & Technology Co.,Ltd.		
Title	N103D_MAIN_V400	
Size	Document Number	Rev
A4	HDMI Jack & Level Translator & ESD	V2.05
Date:	Wednesday, October 30, 2013	Sheet 13 of 22

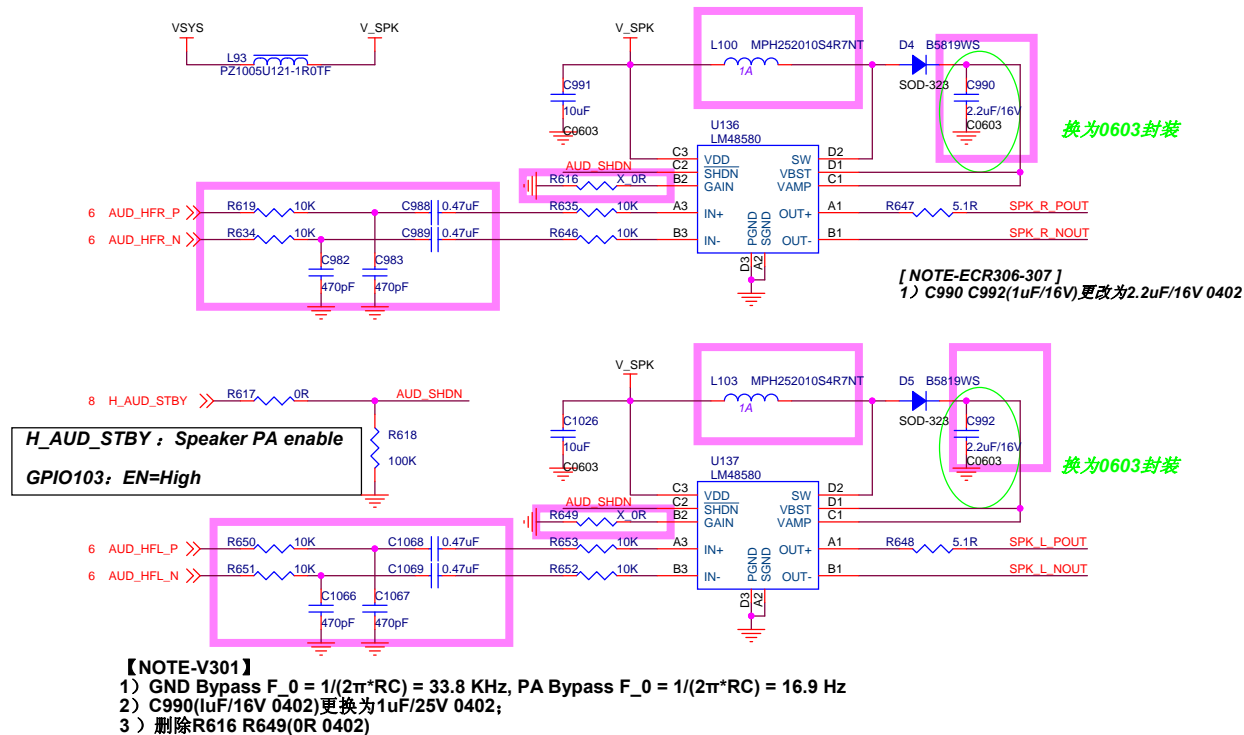
Headset Jack with MIC & Audio line



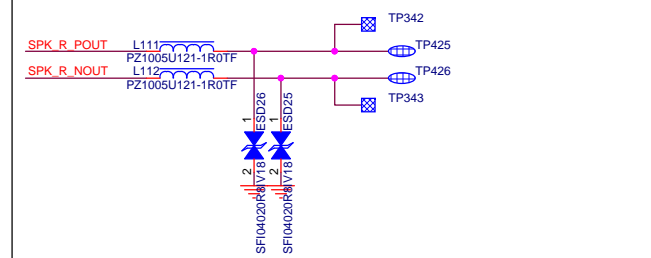
SPK & Vibrator I/F



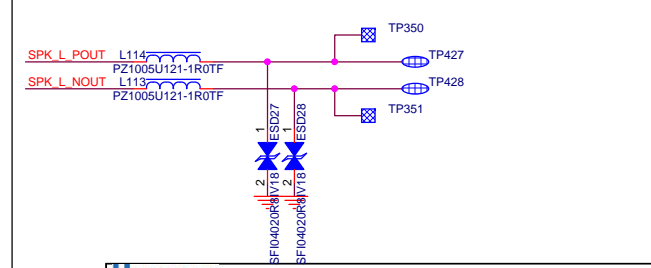
Hands-Free Speaker Power Amplifier

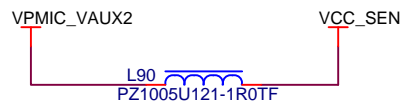


B2L CN: Piezo Buzzer Speaker



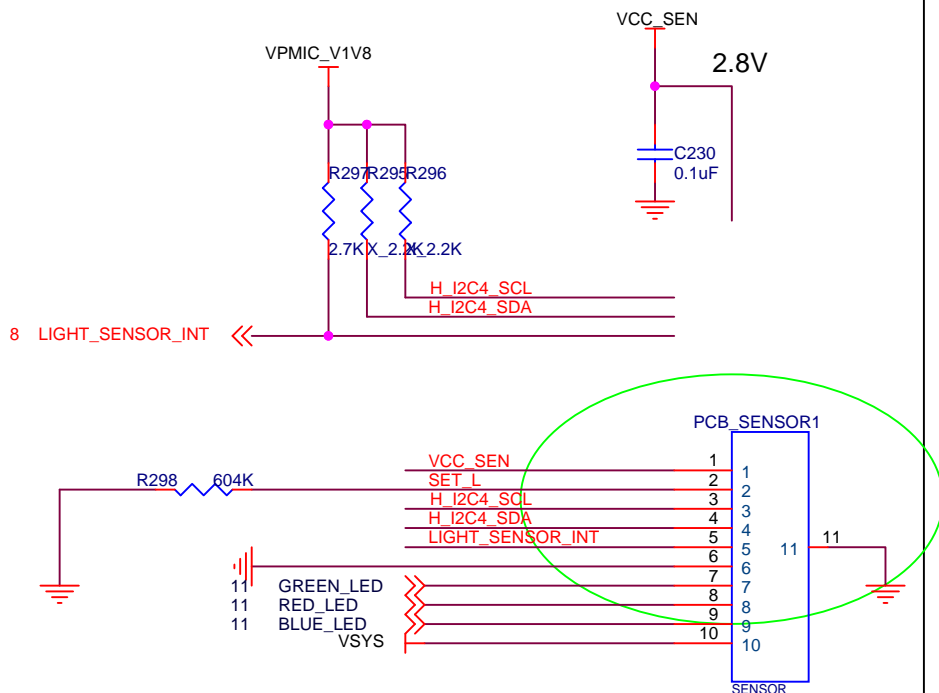
B2L CN: Piezo Buzzer Speaker





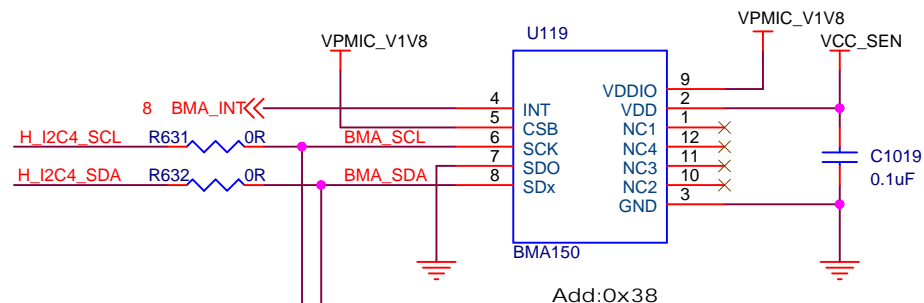
Sensor Power

[NOTE-V205] 删除原U120(TSL2771 LDR), 更改为CM3218;

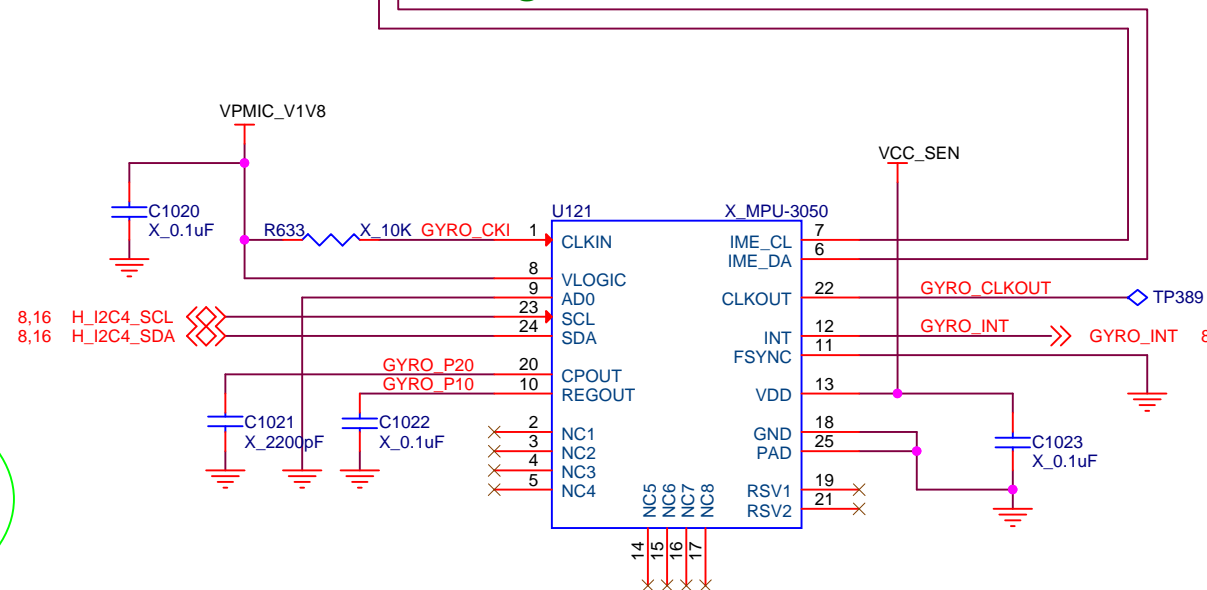


PART NUMBER	PACKING	PACKAGE	PIN NO.	QUANTITY	LEAD FREE	REMARK
CM3218A3OP	Tape and Reel	2.35 x 1.8 x 1.0mm	6	2500	Compliant	Slave address 0x10 Interrupt Alert Response Address (ARA) 0x0C
CM3218A3OP-AD	Tape and Reel	2.35 x 1.8 x 1.0mm	6	2500	Compliant	Slave address 0x48 Interrupt Alert Response Address (ARA) 0x0C

Light & Proximity Sensor



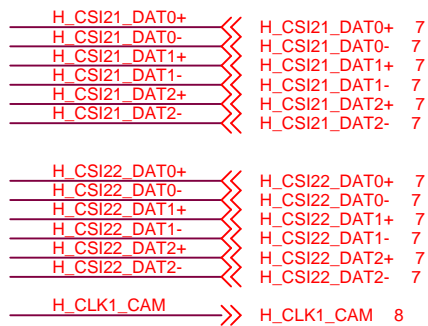
Digital Accelerometer



Note: Device address is 0x68.
Supports Full Speed mode.

Gyroscope

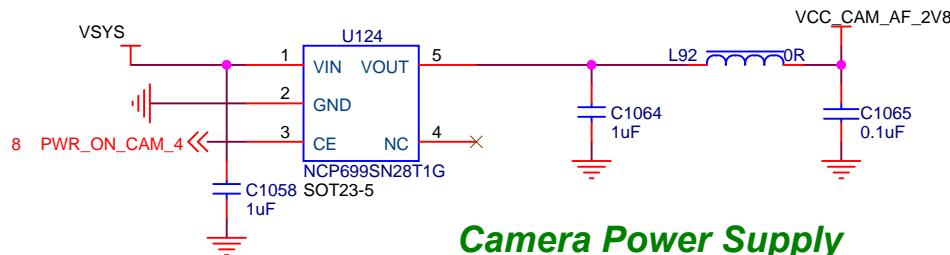
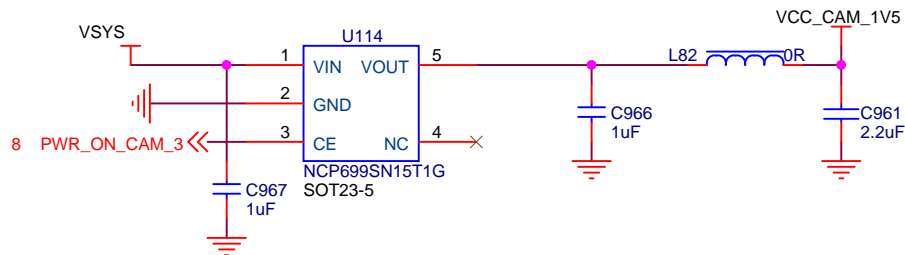
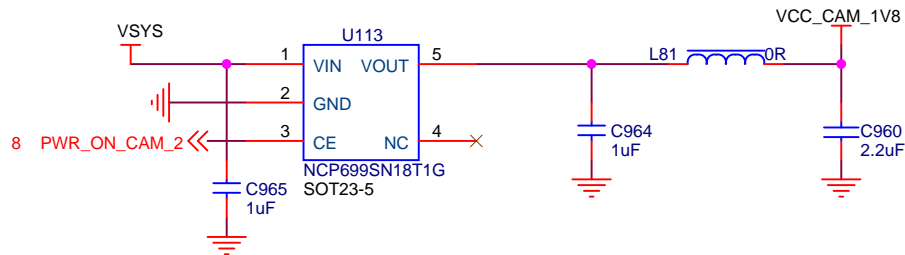
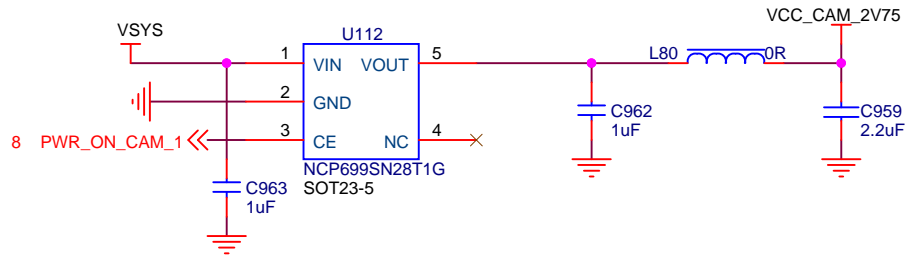
Hampoo Shenzhen Hampoo Science & Technology Co.,Ltd.		
Title	N103D_MAIN_V400	
Size	Document Number	Rev
A4	Sensor G-sen & compass & light	V2.05
Date:	Wednesday, October 30, 2013	Sheet 15 of 22



GPIO & Data Line

[NOTE]

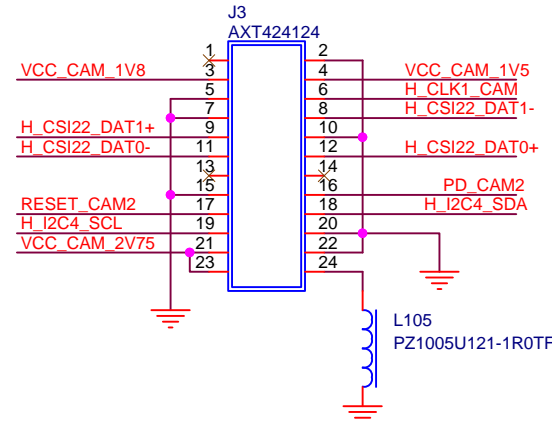
1. 预留camera上电时序控制;



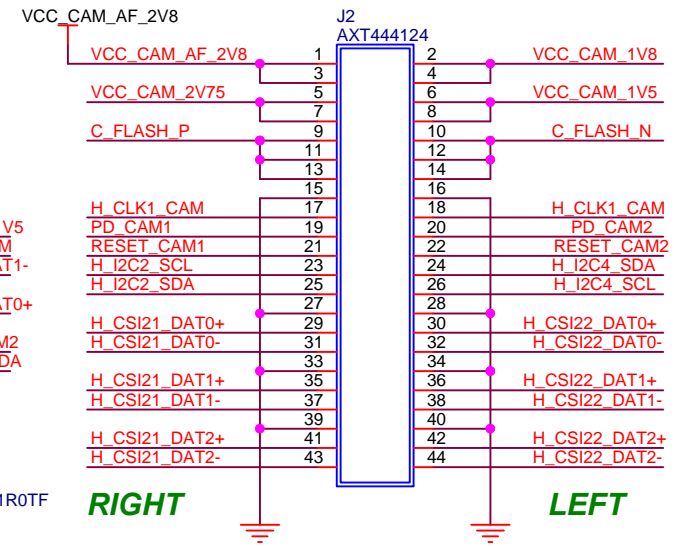
Camera Power Supply

[NOTE]

Camera BTB连接器更换为AXT4x4124公插,
 配套母座为: AXT3x4147G, 更改该连接器可以:
 a. 提高组合的高度为1.5mm (最高可到4.0mm)
 b. 增强组合牢固性, 不易在跌落时松脱;
 c. 相比AXK8L系列连接器, 面积减少了约1/3;



Front Camera

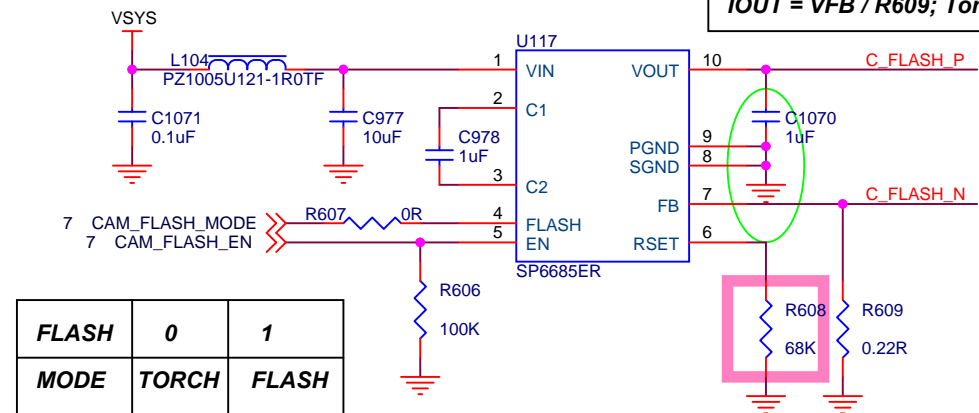


RIGHT

LEFT

Dual 3D Camera

Component ROOM = PAUD_HF_BOOST



FLASH	0	1
MODE	TORCH	FLASH

[Torch mode]

VFB = 50 mV;

[Flash mode]

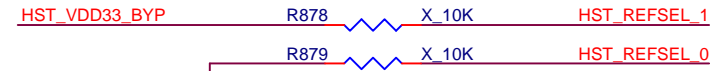
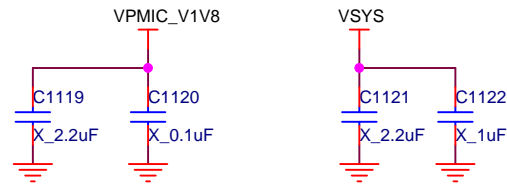
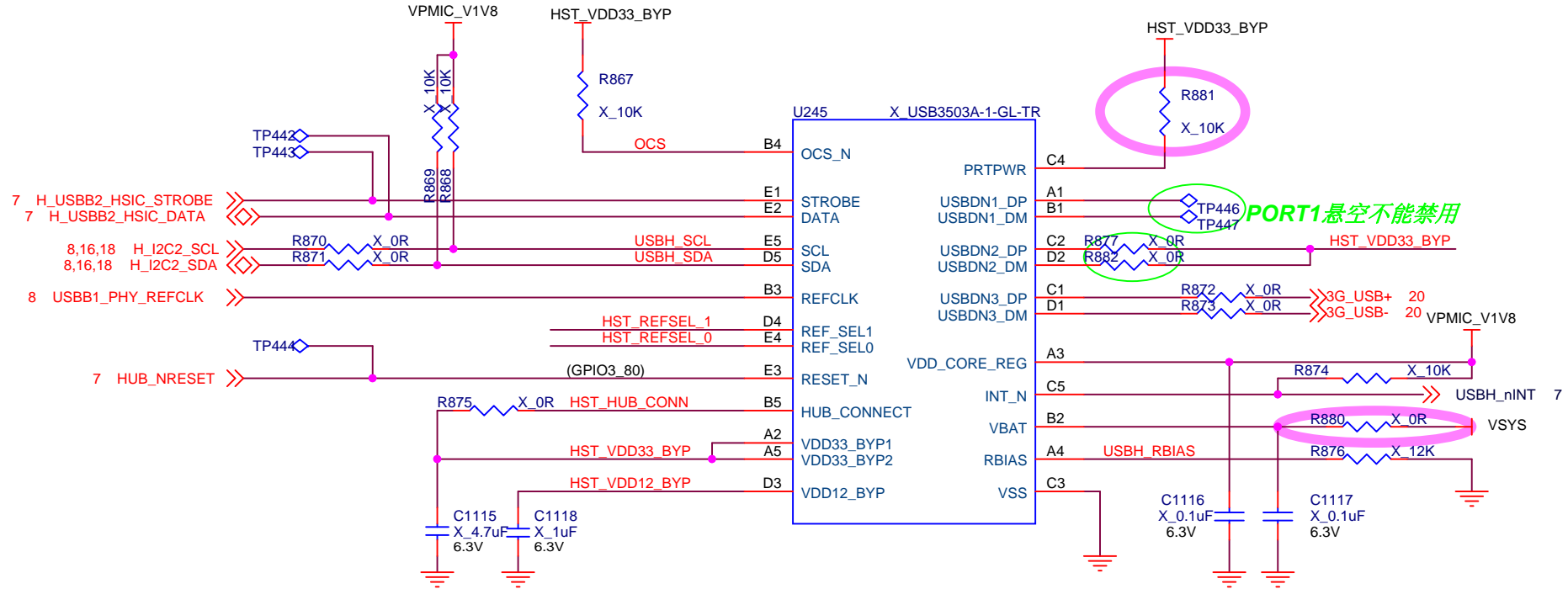
VFB = (1.26V / RSET) * 11.2KΩ = 0.21;

IOUT = VFB / R609; Ton ≤ 100ms

FLASH LIGHT DRIVER

Hampoo Shenzhen Hampoo Science & Technology Co., Ltd.		
Title	N103D_MAIN_V400	
Size	Document Number	Rev
A4	Camera Dual	V2.05
Date:	Wednesday, October 30, 2013	Sheet 16 of 22

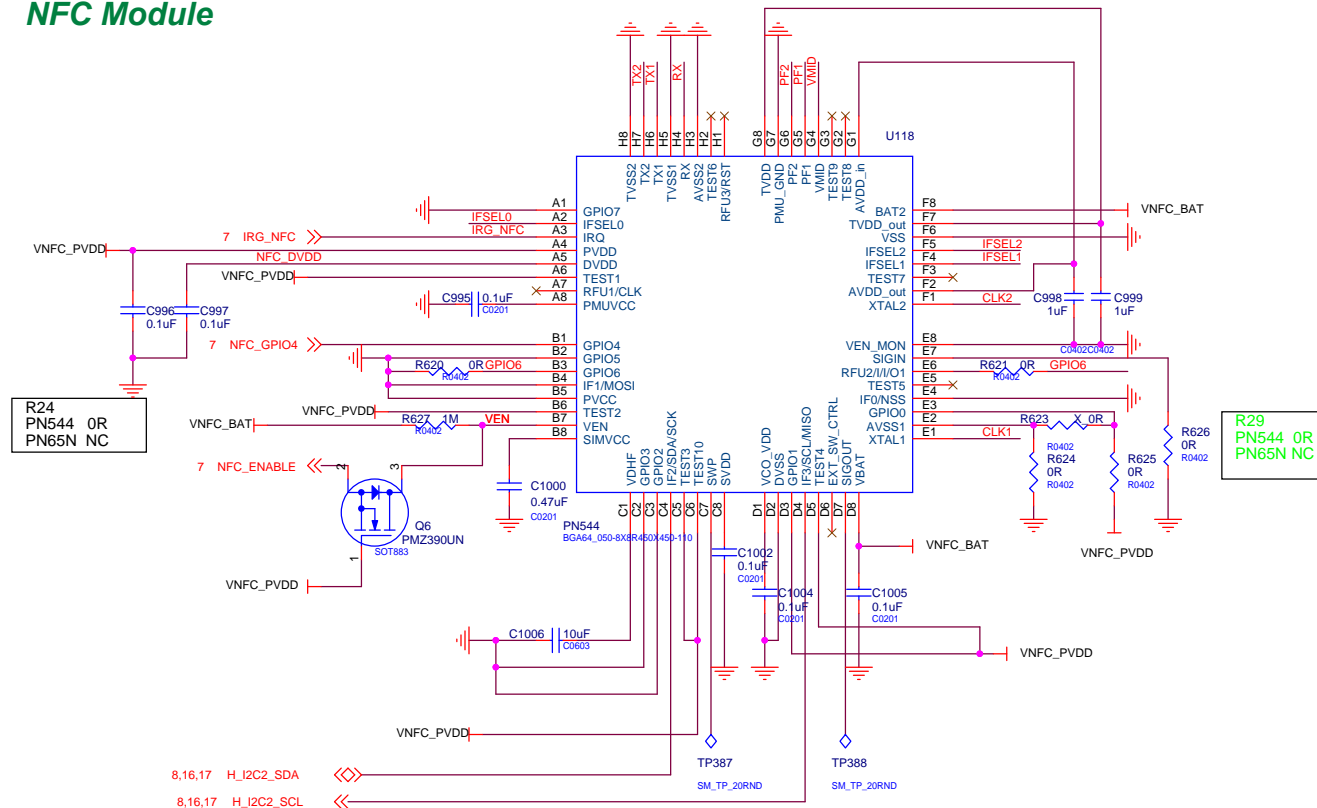
Dual Host Port Bridge



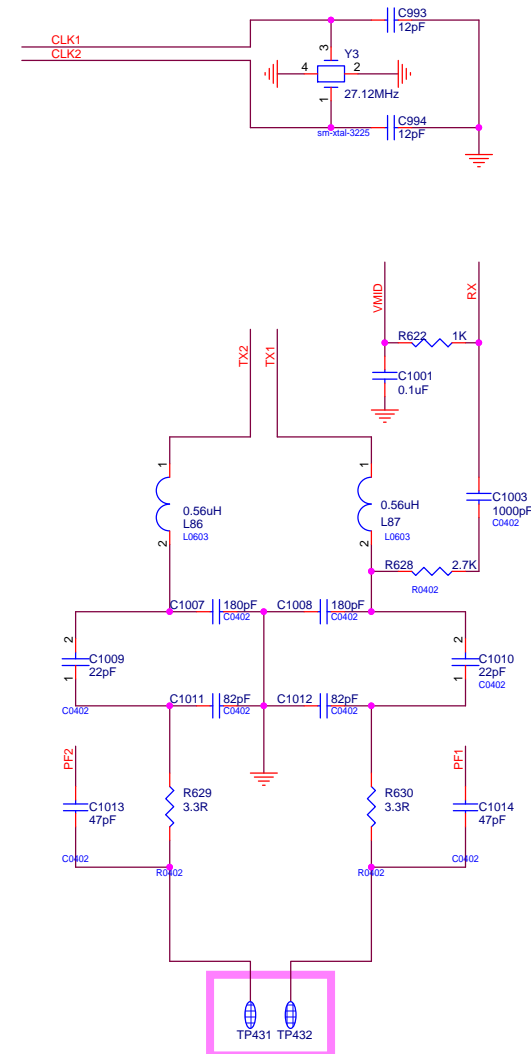
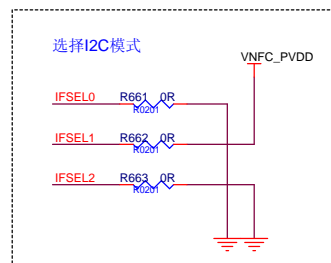
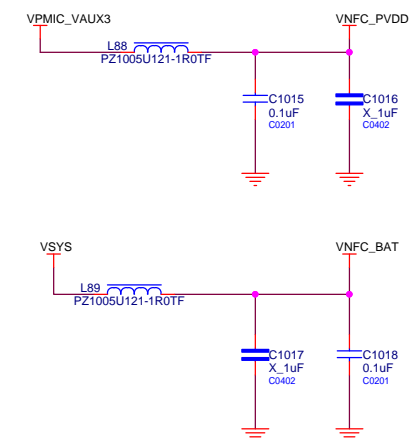
Frequency Select: 19.2MHz

Hampoo Shenzhen Hampoo Science & Technology Co.,Ltd.		
Title N103D_MAIN_V400		
Size A4	Document Number USB-PHY HUB to 3G	Rev 1.0
Date: Wednesday, October 30, 2013	Sheet 17	of 22

NFC Module



调试时注意电压
1.65V-1.95V



[NOTE-V205]
TP431 TP432做成焊接式焊盘, 尺寸2.5x1.4mm;

NFC Antenna

DC2DC_REQ_IN (1 = internal SMPS)	Ext 1.8V detected at power up (on pin LDO_IN_M)?	Internal SMPS activated? (1)
0	Yes	No
1	No	Yes
0	No	No after power up. Yes after first IP is activated.
1	Yes	No

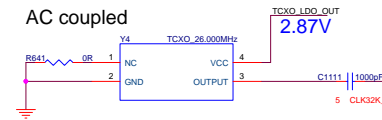
TXCO_VOL_SEL	TXCO_LDO_OUT
GND	1.83 V
Floating	2.5 V
VIO_1.8V	2.87 V

SDIO/WiFi

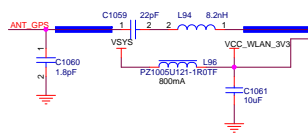
UART2/BT

[NOTE-V205]
R637 R639 R640 R642封装更改为R0201;

AC coupled



[NOTE] 带GPS功能时Y4必须为TXCO,精度≤1ppm;
不带GPS时,则Y4接普通有源晶振,精度≤20ppm;



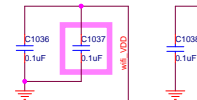
SMPS mode select:
internal SMPS mode(in):
0: PFM Mode.
1: PWM Mode.
External SMPS mode(out):
0: PFM Mode (specific SMPS type dependent)
1: PWM Mode
NIC if not used, it'll pull down

Host request to activate internal SMPS
0: not active
1: activate internal SMPS. While '1'
internal SMPS continue working.
GND if not used.

[NOTE-V205]
R644 R645 R709封装更改为R0201;

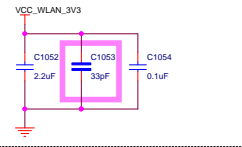
WiFi/BT/GPS Module

[NOTE-V205]
C1037(4.7uF 0603)更改为0.1uF C0201;

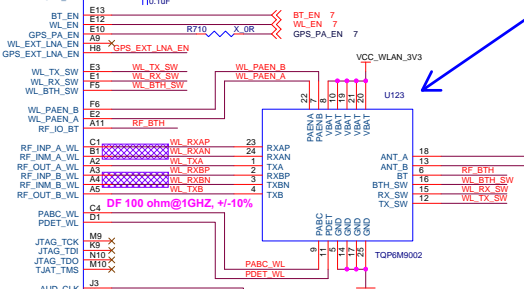


RF 50 ohm@1GHZ, +/-10%
DF 100 ohm@1GHZ, +/-10%

[NOTE]
C1052 C1053 C1054尽量靠近对应的管脚放;



[NOTE-V205]
C1056封装更改为C0201, C1052封装更改为0402;

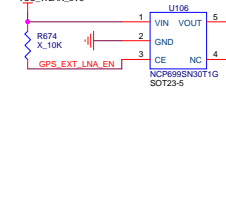


RF 50 ohm@1GHZ, +/-10%

BT Audio

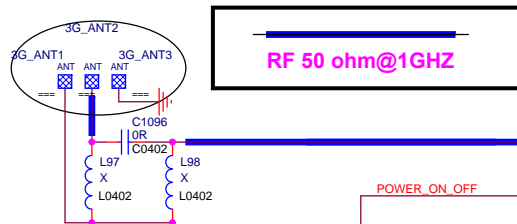
[NOTE-V205]
贴片封装变更, 型号为ET-16;

上27pF电容

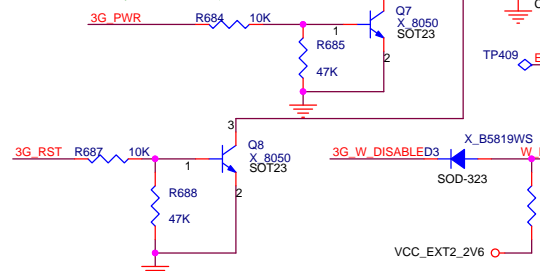


GPS天线

[NOTE]
1. 注意GPS SAW的方向: PIN1为RF输入端;
2. L103, L102摆放注意: 靠近GPS_ANT_RFIN网络两端放置,
L102.2焊盘直接搭到E1 RF走线上, L103.1焊盘上放置于
3V3_WLAN输出端或是电源过孔上, 避免出现短路;

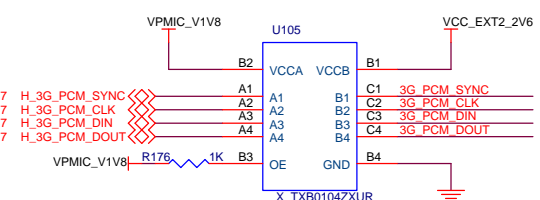


3G天线POGO柱

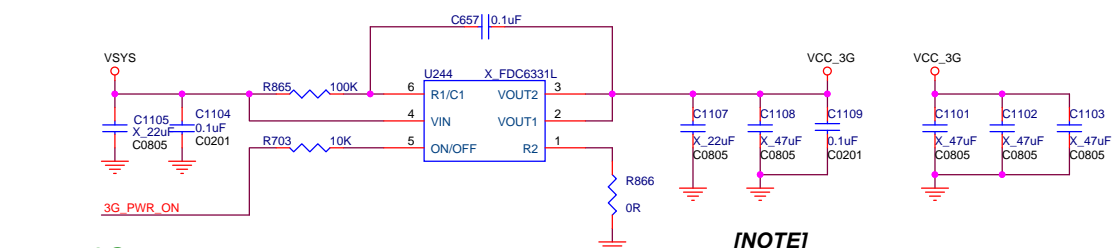


- 17 3G_USB+
- 17 3G_USB-
- 7 3G_WAKE_OUT
- 7 3G_PWR
- 7 3G_RST
- 7 3G_W_DISABLE
- 7 3G_WAKE_BB
- 7 3G_PWR_ON

- 7 3G_UART1_RTS
- 7 3G_UART1_CTS
- 7 3G_UART1_TX
- 7 3G_UART1_RX

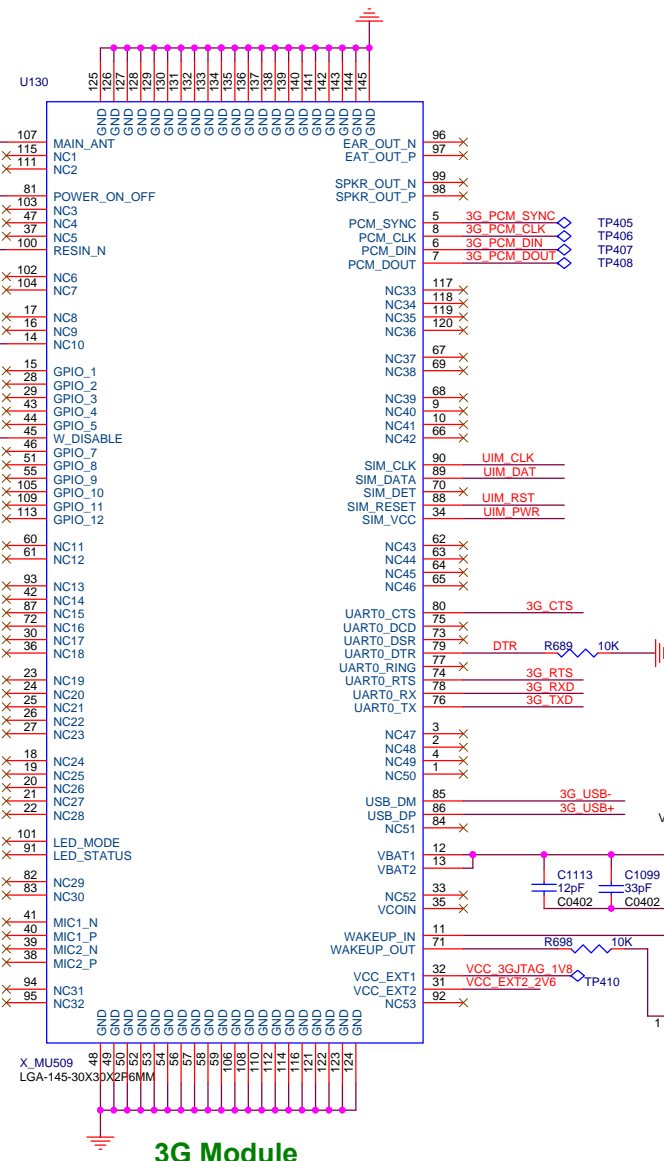


PCM I/F

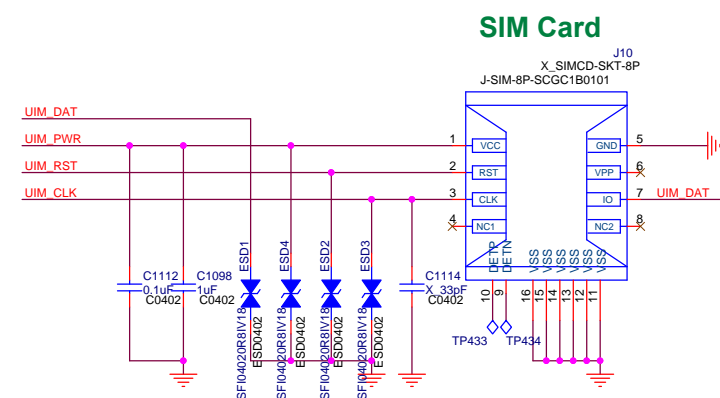


3G power

- [NOTE]
- 1) VCC_3G Ripple<=50mV;
 - 2) 当VBAT电压低于3.6V时,系统出现低电提示,同时软件关闭3G功能;



3G Module

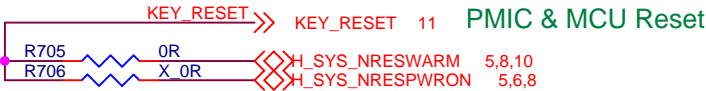


SIM Card

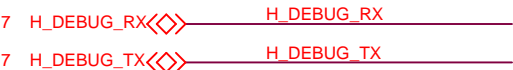
[NOTE] 这四颗ESD防静电管靠近SIM卡座放置;

Standard MIPI Debug I/F

Component ROOM = DEBUG

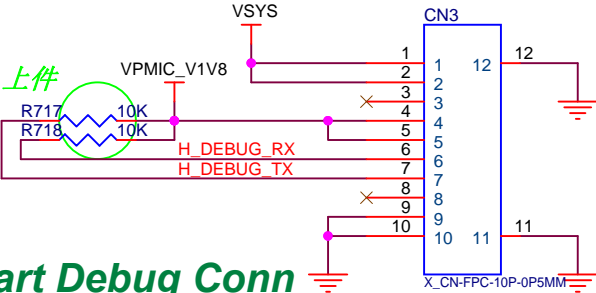


[NOTE] 放置于TOP面，测试点封装为双面焊盘，调试及测试治具用

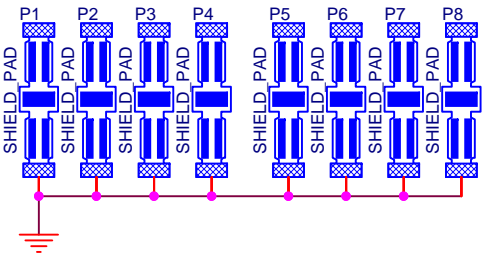


Uart Debug Point

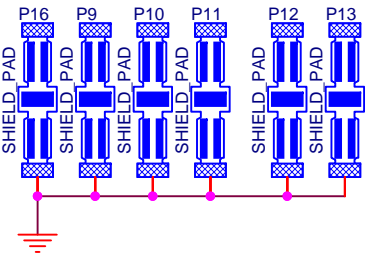
[NOTE] 放置于TOP面，测试点封装为双面焊盘，调试及测试治具用



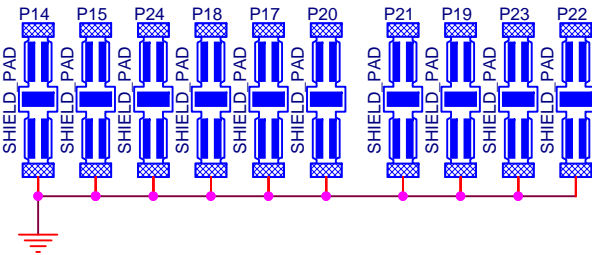
Uart Debug Conn



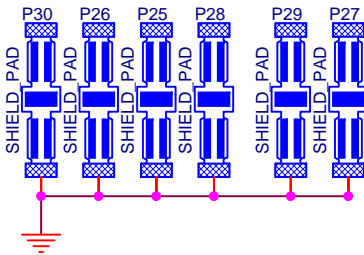
METAL SHIELD A



METAL SHIELD B



METAL SHIELD C



METAL SHIELD D

[NOTE-V205]
增加屏蔽罩夹PAD;

[NOTE-V205] 20130218
删除P31 P32;

Hampoo Shenzhen Hampoo Science & Technology Co.,Ltd.		
Title N103D_MAIN_V400		
Size A4	Document Number Debug Connector	Rev V2.05
Date: Wednesday, October 30, 2013	Sheet 21	of 22

REVISION HISTORY (V300 TO V400)

- 1 - R123(0603)封装换为0402
- 2 - W1,W2 更换封装JUMP-0201
- 3 - U245 外围接口PORT信号上拉更改
- 4 - U67地址与光感冲突(增加R27, R656)
- 5 - 背光限流电阻, 增加R599
- 6 - J8耳机侦测用里面的一个声道(左声道), plug (增加一个ESD10)
- 7 - 预留1.8V TP, 删除3颗0欧姆电子R561, R563, R564上拉更换为1.8V, U19删除, SPI信号删除
- 8 - 增加ID版本识别, BOARD_ID0, BOARD_ID1网络从CPU拉出来
- 9 - U136, U137功放后面的C990, C992更换为0603封装
- 10 - USB座子增加磁珠和ESD器件
- 11 - 按键连接器CN2增加ESD器件
- 12 - MIC和喇叭焊接点前面加上ESD器件
- 13 - HDMI接口增加ESD器件
- 14 - GPS天线ANT1附件加上ESD37
- 15 - 删除debug测试点
- 16 - 删除纽扣电池B1
- 17 - 删除R660
- 18 - 3G天线部分之前的焊接PAD改为POGO柱子, 位号为POGO1
- 19 - 光感部分做一个转接小板
- 20 - TP到LCD的一段I2C信号删除, 去掉之前的两颗预留电阻
- 21 - 耳机座子附近的电路优化, 去掉之前POP音电路, 此处结构限高
- 22 - 删除R654, 耳机侦测的上拉电阻
- 23 - C666删除, DC输入的预留电容, 方便layout
- 24 - LED灯的控制信号CPU端更换两个GPIO

Hampoo Shenzhen Hampoo Science & Technology Co.,Ltd.		
Title N103D_MAIN_V400		
Size A	Document Number REVISION HISTORY	Rev V1.0
Date: Wednesday, October 30, 2013	Sheet 22	of 22